Sedentary Behavior and College Students: Why It Matters Now

Samantha Zust
Project Advisor: Dr. Laura Ellingson

IOWA STATE UNIVERSITY
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Rationale

- Sedentary time (time spent sitting) has been shown to have negative effects on physical and mental health[1].
- These ill health effects are beginning to become more prevalent in younger individuals[2].
- Sedentary time may be a contributing factor, but little is known about the accumulation of sedentary time in this population[2].
- **PRIMARY AIMS:**
  - Aim 1: Characterize sedentary behavior in college-aged men and women
  - Aim 2: Examine differences in accumulation of sedentary time based on gender, age, and physical activity level

Methods

PARTICIPANTS

- 72 students (36 males, 36 females) over the age of 18

PROCEDURES

- Participants given a demographic questionnaire and ActiGraph accelerometer to be worn for one week.
- ActiGraph data processed via Sojourns software along with in-house software to create data summaries[3]

MEASURES

- ActiGraph GT3X+ used to objectively measure sedentary time.
  - Worn on the right hip
  - Measures acceleration as activity counts
  - Records intensity of activity in 3 axes (lying down, sitting, standing)

ANALYSES

- Calculated means and standard deviations for all data
- Effect size (Cohen's *d*) used to analyze differences in gender, age, and physical activity level

References

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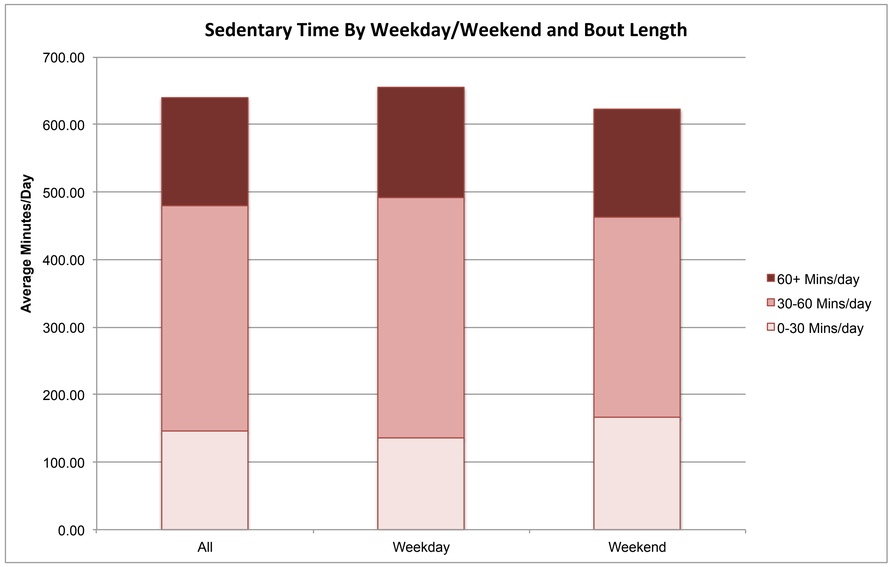
Key Findings

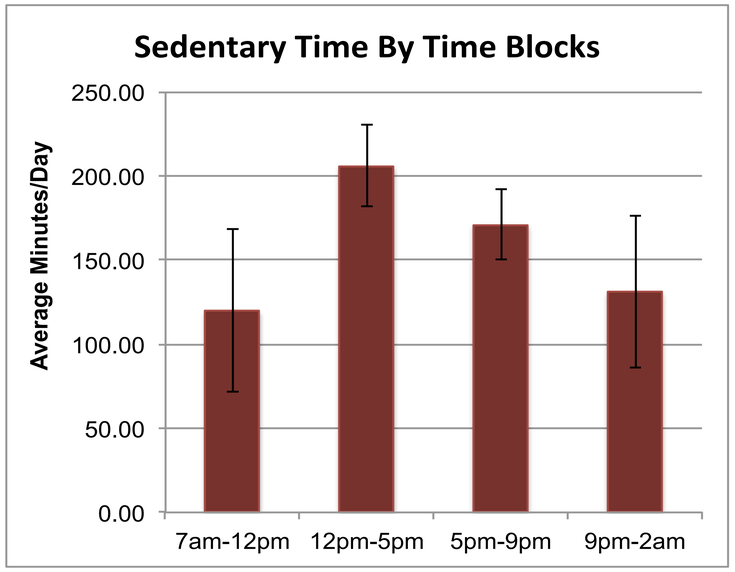
- On average, subjects spent 72% of their day (639.76 + 80.09 minutes/day) sedentary.
  - 52% in bouts of 30+ minutes or more
  - 25% in bouts of 60+ minutes or more
- Small difference between weekday and weekend sedentary time
- Most sedentary between 12:00pm and 5:00pm

Conclusions

- Young adults lead a primarily sedentary lifestyle, possibly due to the structure of university life.
- Future interventions should focus on reducing sedentary behavior in addition to promoting MVPA in college students. Potential strategies include technology-based interventions, more breaks in class & while studying, and increasing campus walkability.

Results 1: How sedentary are college students?





Results 2: What is the relationship between sedentary time, MVPA, and light PA?